Abstract

Blood clot filters having self-centering capabilities when placed in a blood vessel are disclosed. A blood clot device in accordance with an exemplary embodiment of the present invention may include a number filter legs formed at least in part of a shape-memory material configured to transform from a centering configuration to a filtering when deployed in the body. An attachment section on the distal section of each filter leg is configured to pierce and secure the filter to the vessel wall at a first location. A bend region may be heat set into the shape-memory material to provide a second contact location along the vessel wall to aid in centering the filter within the vessel. The bend region can be formed by heating the shape-memory material above its final austenite temperature (A_f), and then shaping the filter leg to form a pad that abuts the vessel wall during deployment.